

F:\DATA\COMMON\CATPAT\42447FI2.DOC 9.5.01

CLAIMS

1. A method for aligning in at least one of time and space temporally ordered sequences of images comprising:

receiving a plurality of sequences of images, each sequence containing a multiplicity of images, each of said plurality of sequences defining a space-time volume; and

providing an output indication relating at least one point in a space-time volume corresponding to one of said plurality of sequences to at least one point in a space-time volume corresponding to at least another one of said plurality of sequences.

2. A method for aligning according to claim 1 and wherein said providing an output indication comprises:

finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment matches spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

3. A method for aligning according to claim 1 and wherein said providing an output indication comprises:

finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment correlates spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

009052891 051001

finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment matches at least temporal variations occurring at plural locations in said first space-time volume to at least temporal variations occurring at plural locations in said second space-time volume.

finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment correlates at least temporal variations occurring at plural locations in said first space-time volume to at least temporal variations occurring at plural locations in said second space-time volume.

7. A method according to claim 2 wherein said step of finding at least one global alignment in at least one of time and space comprises finding at least one global alignment in space.

38

a space-time volume generator, receiving a plurality of sequences of images, each sequence containing a multiplicity of images, each of said plurality of sequences defining a space-time volume; and

an aligner, providing an output indication relating at least one point in a space-time volume corresponding to one of said plurality of sequences to at least one point in a space-time volume corresponding to at least another one of said plurality of sequences.

9. A system for aligning according to claim 8 and wherein said aligner comprises a match-based global alignment finder, finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment matches spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

10. A system for aligning according to claim 8 and wherein said aligner comprises a correlation-based global alignment finder, finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment correlates spatial-temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

11. A system for aligning according to claim 8 and wherein said aligner comprises a match-based global alignment finder, finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences,

which said at least one global alignment matches at least temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

12. A system for aligning according to claim 8 and wherein said aligner comprises a correlation-based global alignment finder, finding at least one global alignment in at least one of time and space between at least a portion of a first space-time volume corresponding to one of said plurality of sequences and at least a portion of a second space-time volume corresponding to at least another one of said plurality of sequences, which said at least one global alignment correlates at least temporal variations occurring at plural locations in said first space-time volume to spatial-temporal variations occurring at plural locations in said second space-time volume.

13. A method according to claim 1 wherein said images comprise color images.

09852891.05.1001